



FORM PTO-1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. K-1436P Cont.		SERIAL NO. 10/606482								
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) (37 CFR 1.98(b))				APPLICANT Mehrotra et al.										
				FILING DATE 6/26/03		GROUP								
U.S. PATENT DOCUMENTS														
EXAMINER INITIAL		PATENT NUMBER						ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
		4	0	1	1	1	0	8	3/1977	Hellman et al.	148	11.5P		
		4	1	2	7	4	1	6	11/1978	Lumby et al.	106	73.2		
		4	2	2	7	8	4	2	10/1980	Samanta et al.	409	131		
		4	2	6	4	5	4	8	4/1981	Ezis	264	65		
		4	2	8	6	9	0	5	9/1981	Samanta	409	132		
		4	2	9	6	0	6	5	10/1981	Ishii et al.	264	325		
		4	3	8	8	0	8	5	6/1983	Sann et al.	51	307		
		4	4	0	1	6	1	7	8/1983	Ezis et al.	264	332		
		4	4	0	6	6	6	7	9/1983	Sann et al.	51	295		
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		4	4	0	9	0	0	3	10/1983	Sann et al.	51	295		
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION														
		DOCUMENT NUMBER						PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION		
		9	7	1	8	1	7	7	5/1997	PCT			YES	NO
		0	2	9	8	9	3	6	1/1989	Europe			X	
		9	7	3	5	8	1	7	10/1997	PCT			X	
		0	3	5	4	1	4	3	03/1991	Japan			Full English	
		3	1	9	3	6	6	6	08/1991	Japan			Full English	
		3	9	3	8	6	4	4	05/1990	Germany				X
OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)														
		Sivasankaran et al., "Wear of Ceramic Tools in Machining Cast Iron", pp. 293-301												
		Beeghly et al., "Application-Specialized Ceramics: A Silicon Nitride for Machining Gray Cast Iron".												
		pp. 91-99; ASM Conference: Tool Materials, Scottsdale, AZ (February, 1987)												
		Janardhana Reddy et al., "Comparative Studies of Ceramic and Tungsten Carbide Tools for Machining Gray Cast Iron," pp. 161-171; Conference: Advanced Ceramics; India (March, 1990)												
EXAMINER								DATE CONSIDERED						
EXAMINER: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.														



K-1436P Cont
Patent

-1-

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with first class postage affixed, in an envelope addressed to Assistant Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on July 30, 2003.

Signature

Rhonda L. Sanders

Type or Print Name of Person Certifying

Date: July 30, 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of: Mehrotra et al.)

Serial No. 10/606482)

Filed: June 26, 2003)

For: PROCESS FOR HEAT TREATING)

CERAMICS AND ARTICLES OF)

MANUFACTURE MADE THEREBY)

Group Art Unit:

Examiner:

ASSISTANT COMMISSIONER FOR PATENTS
Alexandria, Virginia 22313

INFORMATION DISCLOSURE STATEMENT

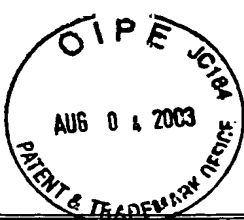
In accordance with the provisions of 37 C.F.R. 1.56 and 37 C.F.R. 1.97-1.99, it is requested that the references listed on the attached Form PTO-1449 be made of record in the above identified application. Copies of the references are submitted herewith. If some of the documents have markings thereon, applicants do not intend to attach any significance to such markings.

This Information Disclosure Statement is being filed within three months of the filing date of this patent application and hence, must be considered by the Patent Examiner. However, if any fees are necessary, the Commissioner is hereby authorized to charge fees necessary to enter this paper and obtain consideration of the documents identified on the attached listing to Deposit Account No. 02-2267.

Respectfully submitted,

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Attorney for Applicant(s)
Registration No. 28,688
Telephone: 615-662-0100
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		4	4	0	9	0	0	4	10/1983	Sann et al.	51	295		
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		4	4	3	3	9	7	9	02/1984	Sann et al.	51	307		
		4	4	3	4	2	3	8	02/1984	Ezis et al.	501	98		
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		DOCUMENT NUMBER						PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION		
		4	0	0	0	7	7	7	08/1990	Germany			YES	NO
		3	9	3	9	9	8	9	07/1990	Germany				X
OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)														
		Tennenhouse et al., "Interaction of Silicon Nitride and Metal Surface", J. Am.. Ceramic Soc. 68 [1] C30-C31 (1985)												
		Agranov et al., "Wear Behavior of Hot Pressed Silicon Nitride in Cutting of Cast Iron", Ind. Ceramics Vol. 8, No. 4 pp. 192-197 (1988)												
		Bhola et al., "ceramic Cutting tool Inserts", Key Engineering Materials, Vols. 122-124 (1996) pp. 235-246												
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		4	5	6	3	4	3	3	01/1986	Yeckley et al.	501	97		
		4	5	7	5	4	4	9	03/1986	Lueth	419	26		
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		4	6	0	9	6	3	3	09/1986	Fukuhara et al.	510	97		
		4	6	3	2	9	1	0	12/1986	Lee et al.	501	97		
		4	6	4	0	6	9	3	02/1987	Bhat et al.	51	295		
		4	6	5	0	4	9	8	03/1987	Buijan	51	309		
		4	6	5	2	2	7	6	03/1987	Burden	51	308		
		4	7	4	3	5	7	1	05/1988	Steinmann et al.	501	97		
		4	7	4	5	0	2	2	05/1988	Miyake et al.	428	216		
		4	7	6	9	3	5	0	09/1988	Nishioka et al.	501	98		
FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION														
		DOCUMENT NUMBER						PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION		
		0	1	0	7	9	1	9	05/1984	Europe			YES	NO
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		0	4	9	7	3	5	5	08/1992	Europe			X	
		0	4	9	9	8	6	1	08/1992	Europe			X	
		0	4	7	2	2	5	6	08/1995	Europe			X	
		0	5	8	9	9	9	7	04/1994	Europe			X	
OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)														
		Nishioka et al. "Mechanical Properties of Si ₃ N ₄ Ceramics with ZrO ₂ -addition under high temperature and observation of the micro-structure (date unknown)												
		Falk et al. "Microstructure and Short Term Oxidation of Hot-Pressed Si ₃ N ₄ /ZrO ₂ (=Y ₂ O ₃) Ceramics", J. Am. Ceram. Soc. 75 [1] (1992) pp.28-35												
		Knutson-Wedel, Si ₃ N ₄ Ceramics Formed by HIP Using Additions of ZrC ₂ , Ceramics Today-Tomorrow's Ceramics, Materials Science Monographs, 66B, Elsevier Sci. Publishers B.V. (1991)												
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(37 CFR 1.98(b))APPLICANT
Mehrotra et al.FILING DATE
6/26/03

GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER							ISSUE DATE	PATENTEE	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		4	8	4	8	9	8	4	07/1989	Ezis et al.	51	309	
		4	8	8	1	9	5	0	11/1989	Bhat et al.	51	307	
		4	8	9	2	7	9	2	01/1990	Sann et al.	428	698	
		4	9	4	6	6	3	0	08/1990	Ezis	264	65	
		4	9	5	9	3	3	1	09/1990	Mehrotra et al.	501	89	
		4	9	5	9	3	3	2	09/1990	Mehrotra et al.	501	89	
		4	9	6	0	7	3	5	10/1990	Mehrotra et al.	501	89	
		4	9	6	1	7	5	7	10/1990	Rhodes et al.	51	309	
		4	9	6	5	2	3	1	10/1990	Mehrotra et al.	501	89	
		4	9	1	3	9	3	6	04/1990	Mehrotra et al.	427	249	
		4	7	8	9	2	7	7	12/1988	Rhodes et al.	409	131	

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

		DOCUMENT NUMBER							PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
													YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

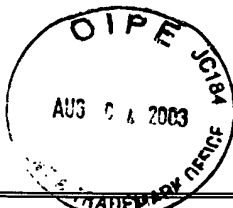
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		5	0	4	9	5	3	1	09/1991	Nakanishi et al.	501	98	
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		5	0	2	4	9	7	6	06/1991	Mehrotra et al.	501	89	
		5	1	1	0	7	7	0	05/1992	Brandt et al.	501	89	
		5	1	2	2	4	8	5	06/1992	Akimune	501	92	
		5	1	7	1	7	2	3	12/1992	Moriguchi et al.	501	97	
		5	1	9	8	1	6	5	03/1993	Akimune et al.	264	65	
		5	2	5	0	4	7	7	10/1993	Baldoni, II et al.	501	95	
		5	2	9	6	0	0	8	03/1994	Moriguchi et al.	51	295	
		5	3	0	8	5	6	1	05/1994	Leimer et al.	264	65	
		5	3	1	6	8	5	6	05/1994	Suzuki et al.	428	446	
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		5	3	7	0	7	1	6	12/1994	Mehrotra et al.	51	293	
		5	3	8	2	2	7	3	01/1995	Mehrotra et al.	51	307	
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		5	4	3	9	8	5	5	08/1995	Rosenthal	501	97	
		5	4	3	2	1	3	2	07/1995	Dasgupta et al.	501	97	
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		5	6	6	8	0	6	9	09/1997	Sato et al.	501	97.2	
		5	5	7	1	7	6	0	11/1996	Pujari et al.	501	97	
		5	7	5	9	4	8	1	06/1998	Pujari et al.	264	655	
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FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION													
		DOCUMENT NUMBER						PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
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(Use several sheets if necessary)

(37 CFR 1.98(b))

U.S. PATENT DOCUMENTS

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		4	7	1	1	6	4	4	12/1987	Yeckley et al.	51	307	
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		5	0	3	4	0	2	2	07/1991	Bhat et al.	51	307	
		5	4	5	5	0	0	0	10/1995	Seyferth et al.	419	36	
		5	6	2	8	5	9	0	05/1997	Beeghly et al.	407	114	
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		5	6	9	1	2	6	1	11/1997	Takahashi et al.	501	97	
		5	7	0	5	4	4	9	01/1998	Hirao et al.	501	97.1	
		5	4	2	4	2	5	6	06/1995	Yoshimura et al.	501	97	

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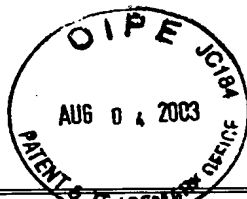
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		5	7	2	0	9	1	7	02/1998	Matsuura et al.	264	432		
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		5	4	7	2	9	1	9	12/1995	Mitomo et al.	501	97		
		5	4	4	5	7	7	6	08/1995	Honma et al.	264	65		
		5	5	4	5	3	6	2	08/1996	Hirosaki et al.	264	65		
		5	5	0	2	0	1	1	03/1996	Yamamoto et al.	501	97		
		5	4	4	9	6	4	9	09/1995	Li et al.	501	97		
		5	5	4	5	5	9	7	08/1996	Yeckley	501	98		
		5	5	4	1	1	4	3	07/1996	Hirosaki et al.	501	92		
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		5	3	8	4	0	8	1	01/1995	Wotting et al.	264	65	
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		5	4	0	5	5	9	2	04/1995	Edler et al.	423	344	
		5	2	9	4	5	7	5	03/1994	Matsumoto	501	97	
		5	2	6	4	2	9	7	11/1993	Jindal et al.	428	698	
		5	6	8	3	4	8	1	11/1997	Chatterjee et al.	65	17.3	
		5	8	5	8	1	8	1	01/1999	Jindal et al.	204	192.15	

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